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(54) Title: UV-CURABLE AND FOAMABLE RESIN COMPOSITION

(57) Abstract: A UV-curable and foamable resin composition comprising a photopolymerizable urethane acrylate oligomer, a photopolymerizable monomer, a photopolymerization initiator, a photolytic foaming agent selected from an azo compound, a combination of sulonium salt and an inorganic carbonate, and a mixture thereof, and a photolysis catalyst is useful for coating a fiber or ribbon bundle to be applied to an air blown fiber system.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR03/00550

A. CLASSIFICATION OF SUBJECT MATTER**IPC7 C08F 2/48**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC07 C08F, C08K, C08L, C03C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean patents and applications for inventions.

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97/46495 A1 (JAPAN SYNTHETIC RUBBER CO., LTD.) 11 December 1997 See abstract, page 8 line 3 - page 9 line 4, page 11 line 17 - page 12 line 17, page 14 line 26 - line 30.	1-7
X	US 5,182,786 A (KINAGA YOSHIMASA ET AL.) 26 January 1993 See abstract, column 1 line 6 - line 10, column 2 line 9 - line 68.	1-7
A	JP 2001-261923 A (SHIN ETSU CHEM. CO., LTD.) 26 September 2001 See abstract	1-7
A	EP 0 195 387 A1 (NIPPON PAINT CO., LTD.) 24 September 1986 See abstract, page 1 line 3 - line 10.	1-7
A	EP 0 345 968 B1 (BICC PUBLIC LIMITED COMPANY ET AL.) 13 December 1989 See the whole document	1-7

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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- "&" document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 97/46495 A1	11-12-97	AU 2982197 A1 JP 9324136 A2	05-01-98 16-12-97
US 5,182,786 A	26-01-93	JP 2170867 A2 JP 2706285 B2	02-07-90 28-01-98
JP 2001-261923 A	26-09-01	None	
EP 0 195 387 A1	24-09-86	JP 61215236 A2 EP 195387 B1 CA 1286552 A1 KR 9200644 B1 US 4740055 A	25-09-86 23-11-89 23-07-91 20-01-92 26-04-88
EP 0 345 968 B1	13-12-89	EP 345968 A3 US 5042907 A JP 3228005 A2 KR 157401 B1 GB 8911959 A0 DE 68927836 C0	08-08-90 27-08-91 09-10-91 18-02-99 12-07-89 17-04-97